Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of treating a subject suffering from or susceptible to a disease or disorder associated with neurodegeneration, the method comprising the step of administering to the subject a therapeutic amount of ~~an amount of~~ a beta-lactam compound which is sufficient to treat the disease or disorder or symptoms thereof associated with neurodegeneration under conditions such that the disease or disorder associated with neurodegeneration is treated, but which does not result in substantial clinically effective antibiotic activity.

2. (original) The method of claim 1, wherein the subject is a human.

3. (original) The method of claim 1, wherein the subject is a subject identified as being in need of such treatment.

4. (original) The method of claim l, wherein the subject is not suffering from a bacterial infection.

5. (currently amended) The method of claim 1, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound for a period of ~~at least about 3~~ greater than 2 weeks.

6. (original) The method of claim 1, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound for a period of at least about 6 months.

7. (currently amended) The method of claim 1, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound in a dosage of less than about ~~250~~ 500 mg/day.

8. (canceled).

9. (original) The method of claim 1, wherein the average plasma concentration of the beta-lactam compound in the subject does not exceed about 10 micrograms per milliliter.

10. (original) The method of claim 1, wherein the beta-lactam compound is a cephalosporin.

11. (currently amended) The method of claim 10, wherein the cephalosporin is ceftriaxone, or a salt thereof.

12. (original) The method of claim 10, wherein the beta-lactam compound is ceftriaxone sodium.

13. (currently amended) The method of claim 11 ~~12~~, wherein the beta-lactam compound is ceftriaxone disodium salt, sesquaterhydrate.

14. (original) The method of claim 1, wherein EAAT2 protein expression is increased *in vivo*.

15. (original) The method of claim 14, wherein EAAT2 production is increased by 200% or more relative to non-regulated production.

16. (original) The method of claim 1, wherein the disease or disorder associated with neurodegeneration is selected from the group consisting Parkinson's disease, Huntington's disease, Alzheimer's disease, multiple sclerosis, amyotrophic lateral sclerosis, acute neurological diseases, epilepsy, spinal cord injury, brain trauma, glaucoma, peripheral neuropathy, and psychiatric disorders.

17. (original) The method of claim 1, wherein the step of administering comprises administering the compound intravenously or intramuscularly.

18. (currently amended) A kit comprising an effective neuroprotective amount of a beta-lactam compound in unit dosage form, together with instructions for administering the beta lactam compound to a subject suffering from or susceptible to a disease or disorder or symptoms thereof associated with neurodegeneration, wherein the effective neuroprotective amount of a beta-lactam compound is an amount which does not result in substantial clinically effective antibiotic activity ~~less than 250 mg of the compound~~.

19. (original) The kit of claim 18, wherein the beta-lactam compound is a cephalosporin.

20. (currently amended) The kit of claim 18, wherein the beta-lactam compound is ceftriaxone, or a salt thereof.

21. (original) The method of claim 1, further comprising determining a level of EAAT expression in the subject.

22. (original) The method of claim 21, wherein the determining of the level of EAAT expression is performed prior to administration of the beta-lactam compound to the subject.

23. (original) The method of claim 21, wherein the determining of the level of EAAT expression is performed subsequent to administration of the beta-lactam compound to the subject.

24. (original) The method of claim 21, wherein the determining of the level of EAAT expression is performed prior to and subsequent to administration of the beta-lactam compound to the subject.

25. (original) The method of claim 24, wherein the levels of EAAT expression performed prior to and subsequent to administration of the beta-lactam compound to the subject are compared.

26. (original) The method of claim 25, wherein the comparison of EAAT levels is reported by a clinic, laboratory, or hospital agent to a health care professional.

27. (original) The method of claim 24, wherein when the level of EAAT expression performed prior to administration of the beta-lactam compound to the subject is lower than the level of EAAT expression performed subsequent to administration of the beta-lactam compound to the subject, then the amount of compound administered to the subject is an effective amount.

28. (new) The method of claim 7, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound in a dosage of less than about 250 mg/day.

29. (new) The method of claim 28, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound in a dosage of less than about 100 mg/day.

30. (new) The method of claim 29, wherein the step of administering the beta-lactam compound comprises administering the beta-lactam compound in a dosage of less than about 50 mg/day.

31. (new) The method according to claim 1 wherein the beta-lactam compound is administered in combination with at least one other pharmacological agent.

32. (new) The method according to claim 31, wherein the at least one other pharmacological agent is a non-steroidal anti-inflammatory compound; riluzole; levodopa; a dopa agonist; an acetylcholinesterase inhibitor; an NMDA receptor blocker; gabapentin; amytriptyline; or an interferon.

33. (new) The method according to claim 32, wherein the non-steroidal anti-inflammatory compound is aspirin, naproxen, sulindac, diclofenac, ibuprofen, celecoxib or valdecoxib.

34. (new) The method according to claim 32, wherein the NMDA receptor blocker is memantine.

35. (new) The method of claim 16, wherein the psychiatric disorder is depression or bipolar disorder.

36. (new) A kit according to claim 18, wherein the amount of beta-lactam compound in unit dosage form is less than 250 mg.